

isc Silicon PNP Darlington Power Transistor

PMD1703K

DESCRIPTION

- High DC current gain
- Collector-Emitter Breakdown Voltage-
 $V_{(BR)CEO} = -100V(\text{Min})$
- Complement to type PMD1603K

APPLICATIONS

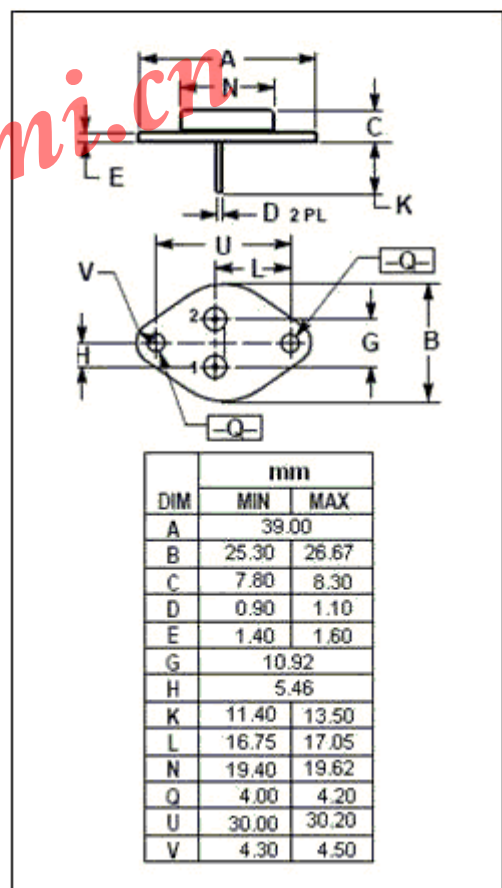
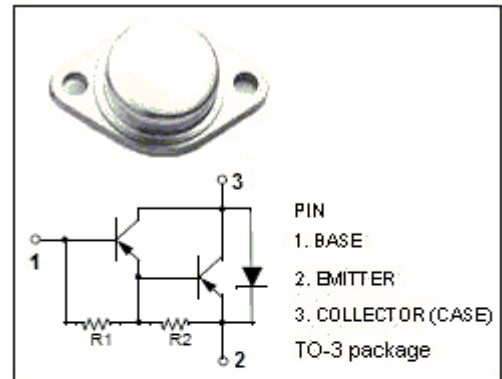
- Designed for general purpose amplifier and low frequency switching applications

ABSOLUTE MAXIMUM RATINGS($T_C=25^\circ\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-100	V
V_{CEO}	Collector-Emitter Voltage	-100	V
V_{EBO}	Emitter-Base Voltage	-5.0	V
I_C	Collector Current -Continuous	-20	A
I_{CP}	Collector Current-Peak	-40	A
I_B	Base Current	-0.5	A
P_C	Collector Power Dissipation@ $T_C=25^\circ\text{C}$	180	W
T_j	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-65~200	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	ThermalResistance, Junction to Case	0.97	$^\circ\text{C}/\text{W}$



isc Silicon PNP Darlington Power Transistor**PMD1703K****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = -100\text{mA}; I_B = 0$	-100		V
$V_{(BR)CER}$	Collector-Emitter Breakdown Voltage	$I_C = -100\text{mA}; R_{BE} = 2.2\text{k}\Omega$	-100		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -10\text{A}; I_B = -40\text{mA}$		-2.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -10\text{A}; I_B = -40\text{mA}$		-2.8	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C = -10\text{A}; V_{CE} = -3\text{V}$		-2.8	V
I_{CER}	Collector Cutoff current	$V_{CE} = -100\text{V}; R_{BE} = 2.2\text{k}\Omega$		-7.0	mA
I_{EBO}	Emitter Cut-off current	$V_{EB} = -5\text{V}; I_C = 0$		-3.0	mA
h_{FE}	DC Current Gain	$I_C = -10\text{A}; V_{CE} = -3\text{V}$	750	20000	
f_T	Current-Gain—Bandwidth Product	$I_C = -7\text{A}; V_{CE} = -3\text{V}; f = 1\text{kHz}$	4		MHz
C_{OB}	Output Capacitance	$I_E = 0; V_{CB} = -10\text{V}; f_{test} = 1.0\text{MHz}$		400	pF